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(54) SILICA-BASED COATING FILM AND SEMICONDUCTOR DEVICE HAVING THE SILICA-BASED COATING FILM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a silica-based coating film excellent in adhesive properties (particularly, adhesive properties in the CMP process) and a semiconductor device which causes less delay of signals and is of a high quality and a high reliability.

SOLUTION: There are provided a silica-based coating film of which the surface has a critical surface tension of 29×10^{-3} N/m or more, and which is formed by coating and drying a coating fluid for forming the silica-based coating film comprising a polysiloxane, which has a substituting group having an unsaturated bond and a substituting group having no unsaturated bond, and an organic solvent, and a semiconductor device in which the silica-based coating film is used as an interlaminar insulating film for multilayer interconnection.

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